

REMARKS

The Office Action has been carefully considered.

Claims 5 and 8 have been amended to avoid the examiner's objections thereto.

Claims 5 and 7-9 are rejected under 35 U.S.C. § 103 as being unpatentable over Reichl in view of Newby et al.

Reichl discloses a catalytic reactor, which includes a dome part divided into three sections separated from each other by baffles 13. Catalyst recovery ceramic filters 12 are mounted in the upper portion of reactor 10. Filters 12 to which the examiner referred have no contact with the fluidized bed of reactor 10 of Reichl and there is no indication in the Reichl disclosure that filters 12 are dipplable into the fluidized bed of reactor 10. Lines 14, 15 and 16 in the Reichl catalytic reactor are purge lines to introduce gas to blow back the catalyst from filters 12. The examiner refers to lines 17, 19 and 20 as outlets of the chambers divided by baffles 13 for a main stream and a bypass gas stream.

Although Reichl states that "The substantially catalyst free reaction products are withdrawn from the top of the reactor" (col. 4, lines 47-56) there is no indication whatsoever in Reichl that each chamber in the upper part of this reactor has an outlet for a main gas stream and a bypass gas stream. All filters 12 are shown and disclosed as ceramic filter cartridges for the main gas stream and in addition filter elements for the bypass gas stream are even suggested by Reichl.

Claim 5 has been amended to more clearly define the present invention.

Referring now to Newby et al., filters 31 are disposed a fluidized bed zone 7, whereas filters 43 are not dipplable into the fluidized bed zone 7. A major portion of hot gas is first

passed through hollow ceramic filters 31 wherein deposits of particulate contaminants collected on the walls of filter elements 31 are removed by the scouring action of the granular media and a minor portion of the gas after passage through the fluidized bed of granular media is then passed through filter elements 43 which are disposed outside the fluidized bed of granular media. There is neither disclosure nor suggestion in Newby et al. that filters 31 and filters 43 have a pore size differing from each as claimed in claim 5 as amended.

The examiner states that the permeability of a filter element directly corresponds to the average pore size of the filter because higher permeability is inherently characterized by a larger pore size and lower permeability is inherently characterized by a smaller pore size.

Contrary to the examiner's statement Newly et al. in col. 5, lines 40-43 states that a "permeability profile may be used in the filter elements to control the gas withdrawal flow or a set of filter elements of different lengths may be placed in the bed to provide a profile of filter surface area". As further stated by Newly et al. (col. 5, lines 24-30) the development of a longer candle section would significantly enhance the ability to achieve higher filter surface area packing arrangement. These statements by Newby et al. have nothing to do with different pore sizes of two groups of filter disclosed in this reference.

The examiner concluded that it would have been obvious to a skilled artisan to modify the filter cartridges of Reichl such that groups of ceramic filters of a given zone comprised a different pore size than the groups of ceramic filters in a separate zone. It should be noted that firstly Newly et al. failed to suggest different pore size in different filter groups and secondly there is no suggestion or motivation in the Reich disclosure to use filters 12, which would have different pore size. Reichl teaches a catalytic reactor with the filters 12 that are not dipplable into a fluidized bed. Filters 12 of Reichl are catalyst recovery means.

It is therefore believed that the Reichl and Newby et al. disclosures are not combinable in the manner suggested by the examiner.

In short, it is believed that claims 5, 8, 9 and 12 are allowable over the art.

Claim 13 is rejected under 35 U.S.C. § 103 as being unpatentable over Legutke et al. (4,310,713) in view of Antonini (3,907,912) and Newby et al.

The examiner admits that Legutke et al. teach a cyclone instead of the recited filter cartridges and Antonini et al., even if combined with Legutke et al., fails to suggest a step of removing a partial gas stream as a bypass gas stream in addition to a main gas stream wherein the bypass gas stream comprises a predetermined content of dust particles of a smaller size than a predetermined particle size. The examiner refers to filters 31 and 43 of Newby et al. and states that the step of removing a bypass gas stream as claimed in claim 13 can read on the Newby et al. disclosure providing that the minor portion passing through second filter elements 43 "will have a predetermined content of dust particles which is smaller than a predetermined particle size". Newby et al. does not suggest anything regarding the bypass gas stream having a predetermined content of dust particles of a size, which is smaller than a predetermined particle size. Filter elements 43 are disposed outside of the fluidized bed of granular media 9 and fine material separated from gas stream is collected on the walls of filters 43 and then is discharged there from.

Claim 3 has been canceled and its limitations have been added in claim 13. The examiner cites Reichl in combination with Legutke et al., Antonini and Newby et al. discussed above against claim 3 now canceled.

Reichl fails to suggest any bypass gas stream removed from a section or part of the dome part separated from the dome part section from which the main gas stream is removed. Thus the

combination of Legutke et al. with Antonini, Newby et al. and Reichl would not suggest to a skilled article the present invention as defined in claim 13 as amended.

Four references have been applied against previous claim 3 dependent on claim 13. Neither reference suggests removing the main gas stream and the bypass stream, respectively, from two spaces of the dome part separated from each other. Only applicant suggest such step of removing and it is well-established that a combination of limitations, some of which separately may be known, may be a new combination of limitations which is no obvious under the condition of 35 U.S.C. § 103.


Moreover, "an examiner may often find every element of a claimed invention in the prior art." In re Rouffet, 47 USPQ3d 1453, 1457 (Fed. Cir. 1998) (reversing PTO obviousness rejection based on lack of suggestion or motivation to combine reference). Therefore even if every element of a claimed invention is in the combined prior art there must be some suggestion or motivation to combine the references. "Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form must nevertheless be 'clear and particularity.'" In re Dembiscak, 175 F.3d 994, 999 (CAFC 1999).

It is therefore believed that claims 13 and 4 are allowable over the prior art.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,


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